REMARKS

1. The undersigned thanks the examiner and his supervisor James Trujillo for the telephone interview conducted August 20, 2008. The substance of the telephone interview is provided below.

2. Claim 41 was rejected under 35 U.S.C. 112. Claim 41 is amended per the examiner's suggestion made in the office action.

3. Claims 11 and 13 were rejected under 35 U.S.C. 102(b) as anticipated by U.S. patent no. 5,487,170 to Bass et al.

As discussed at the interview, claim 11 recites:

> ... accessing any one of said resources by any one of said tasks comprises:
>
> (1) the task **attempting** to access the resource, wherein attempting ... comprises generating a signal ...;
>
> (2) ...
>
> (3) the task **accessing** the resource ...;
>
> wherein ... if the task T1 attempts to access the resource R1 after the task T1 has already finished accessing the resource R1, and at least one other task T2 **has not attempted** to access the resource R1 after the task T1 has finished accessing the resource R1, then the circuit **does not allow the task T1 to access the resource** R1 **until** the task T2 **attempts** to access the resource R1 and accesses the resource R1.

One embodiment of claim 11 is illustrated in Fig. 4. Task 0 is shown as connected by switch "a" to a resource called "Request FIFO" (the switch is a conceptual representation of Task 0 owning the Request FIFO). The specification page 19 lines 14-18 explain that "When Task 0 accesses the request FIFO 230, switch "a" is flipped to connect the request FIFO to Task 1. Task 0 will not be allowed to read the request FIFO again until Task 1 has read the request FIFO".

Further illustration is provided in the state diagram of Fig. 7 and specification page 25 as described in the applicant's amendment filed March 24, 2008 at page 7 third paragraph. At the interview, the undersigned explained that Task 0 could attempt accessing the FIFO when the task was in the Active state shown in Fig. 7. If Task 0 did not own the FIFO at that time, then Task 0 would move to the Suspend state. When Task 1 attempted and accessed the FIFO, then Task 0 would move to the Ready state (RDY) and then, when selected, to the Active state. Task 0 could then again attempt the FIFO access. This is explained in detail starting at page 26 line 3 of the specification.

Per the office action page 4, the examiner read "attempting" on Bass' task request and read the last paragraph of claim 11 on the round robin scheme of Bass' claim 8. As explained by the undersigned at the interview, Bass' claim 8 is directed to providing access to one of the tasks that have issued task requests, i.e. one of the tasks that have attempted to access the resource, but claim 8 does not contemplate taking into account any task that has not issued a task request and thus has not attempted to access the resource as recited in the last paragraph of the applicants' claim 11. Moreover, Bass provided no motivation for taking into account a task that has not issued a task request, as was explained at the interview on the following example.

Suppose that Bass' scheme is applied to providing access to a USPTO router which connects the examiners to the internet. Let us suppose that the USPTO router would attempt to operate as in the applicants' claim 11. Then, if a first examiner (or his task) accessed the internet, but a second examiner was on vacation and hence was not going to access the internet for a while, then the first examiner would not be allowed to access the internet again until the second examiner came back from vacation and attempted to access the internet. This is clearly unreasonable and cannot be taught or suggested by Bass.

The undersigned explained why the applicants' invention was reasonable in the context of the applicants' Fig. 2, showing an interface between Ethernet MAC 130 and ATM Slicer 140. Task 0 and Task 1 could be processing consecutive packets on a single channel, e.g. the ingress (input) Ethernet channel. For example, Task 0 could process a packet 1, Task 1 could process a packet 2, Task 0 could process a packet 3, etc. Task 0 could stop accessing the pertinent resources if there were no packets to process, in which case

Task 1 would also have no packets to process and hence would also have no need of the resources. Therefore, there would be no unreasonable blocking of access as in the USPTO router example described above.

Claim 11 is not limited to the embodiments discussed herein.

The examiner then pointed to Bass' column 1, lines 50-56 as anticipating the last paragraph of claim 11. Bass' column 1, lines 50-56 describe time division, i.e. each task getting a time window to execute. "When its time window is complete, the next task gets its turn." The examiner suggested the following scenario. Suppose task T1 accesses the resource in window 1, then makes a second attempt (a task request) in window 1 but does not actually access the resource in window 1 based on the second attempt. Then window 2 begins, and task T1 is not allowed to access the resource in window 2 because this window is for task T2, but task T2 does not attempt or access the resource in this window. Since task T1 is not allowed to access the resource in window 2 and task T2 does not attempt to access the resource in window 2, the last paragraph of claim 11 is met according to the examiner because "the circuit does not allow the task T1 to access the resource R1" in window 2 in which task T2 does not attempt to access the resource. The examiner said that the last paragraph of claim 11 was met because claim 11 recited "the circuit does not allow access" as opposed to "the circuit **will** not allow access". The examiner said that claim 11 was met because claim 11 did not require prospectively not allowing the task T1 to access the resource.

The undersigned responded that the "until" clause in the last two lines of claim 11 was prospective in the sense mentioned by the examiner. More particularly, in order to meet claim 11, it was not sufficient that task T1 would not be allowed to access the resource at some time when task T2 had not attempted to access the resource. Claim 11 required that task T1 would not be allowed access "until the task T2 attempts to access ...". The undersigned also stated that he did not object to changing "does not allow access" to "will not allow access". The examiner suggested that such amendment would change the claim scope, but this is respectfully traversed by the undersigned in view of the "until" clause of claim 11.

The examiner and his supervisor said they would consider the arguments made by the undersigned if presented in a response to the final office action, and such consideration is respectfully requested. The examiner is invited to telephone the undersigned with any questions or suggestions regarding this case. Also, the examiner is authorized to change "does not allow access" to "will not allow access" by examiner's amendment if such amendment is accompanied by allowance.

3. Claim 13 is believed to be allowable for reasons similar to the reasons given above for claim 11. The examiner is authorized to change "does not allow access" to "will not allow access" in the last three lines of claim 13 by examiner's amendment if such amendment is accompanied by allowance.

4. Claims 12, 35 were rejected under 35 U.S.C. 103(a) over Bass in view of U.S. patent no. 5,167,022 to Bahr et al. Claims 30, 36 were rejected under 35 U.S.C. 103(a) over Bass in view of U.S. patent no. 4,847,751 to Nakade et al. Claims 31-33, 37-39, 41-42 were rejected under 35 U.S.C. 103(a) over Bass in view of Nakade and U.S. patent no. 5,386,517 to Sheth et al.

Similar rejections had been made in the previous office action, dated January 3, 2008. That office action also rejected claims 34, 40 under 35 U.S.C. 103(a) over Bass in view of Nakade, Sheth and U.S. patent no. 5,592,654 to Djakovic, but the rejection of claims 34, 40 was not repeated in the final office action.

Claims 12, 30-33, 35-39, 41-42 each depend from claim 11 or 13. Bahr, Nakade, and Sheth were cited as teaching features recited in these dependent claims. These features do not overcome the deficiency of Bass as discussed hereinabove with respect to Claims 11 and 13.

5. If a fee is required for this submission, please charge the fee or any underpayment thereof, or credit any overpayment, to deposit account 50-2257.

Any questions regarding this case can be addressed to the undersigned at the telephone number below.

Certificate of Transmission: I hereby certify that this correspondence is being transmitted to the United States Patent and Trademark Office (USPTO) via the USPTO's electronic filing system on August 22, 2008.

Michael Shenker 8-22-08

Attorney for Applicant(s) Date of Signature

Respectfully submitted,

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